# Litton Systems, Incorporated
# Poly-Scientific Division

Blacksburg, Virginia

# E2 Status Report
# July 2003

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## Purpose

Poly-Scientific achieved E2 status as designated by the Virginia Department of Environmental Quality in February 2002. The purpose of this report is to inform the Office of Prevention Pollution of the progress and accomplishments of the Poly-Scientific Environmental Management System.

## Progress of EMS Implementation

### Implementation

Poly-Scientific has continued the implementation of the EMS developed in 2000-2001 thru a process of evaluation, measurement, and application. Benefits of the EMS implementation, including cost savings, have proven the program's usefulness and allowed for increased funding for environmental projects. Poly-Scientific has also shared our EMS with our customers who may be developing an EMS of their own and to include specific customer requirements.

### Employee Training

Each and every employee of Poly-Scientific has received specific training on the EMS and how it relates the to their own role in the manufacturing environment. Training included our targets and objectives for 2002-2003 and application of the EMS principles to various manufacturing processes.

## Accomplishments

### Energy Consumption

Poly-Scientific reduced total energy consumption by 7% in 2002. Although we fell short of our 10% goal established in our 2002 Targets and Objectives, the program continues to show promise for 2003. The reduction was accomplished using the technology of our BacTalk energy management system, which allows control of HVAC equipment via a computer network. The program allows for various setpoints for temperature, etc. dependant on building occupancy. Additional equipment linked to the system included test chambers that operate 24 hours a day.

### Solid Waste Reduction

During CY2002, Poly-Scientific achieved a 10% reduction in total solid waste generation falling short of our 25% goal. We continue to strive for further reductions in 2003 by evaluating and redesigning our product packaging. With the utilization of off-shore manufacturing facilities in St. Kitts, Dominican Republic, and the Czech Republic, the sheer volume of shipping containers has almost doubled. Therefore, our primary focus has been on reusable wood shipping crates in lieu of cardboard boxes.

In addition to shipping containers, Poly-Scientific has also created a partnership with Xerox Corporation to evaluate, quantify, and offer solutions to reduce the volume of paper copies made in our facilities. At the beginning of the project, nearly 600,000 copies were made per month! That quantity is now less than 400,000 which means less solid waste generated for disposal. Along the same lines, the company began an initiative towards a paper-less business approach utilizing new software for time and attendance, sales, and internal communications.

Lead Free Manufacturing

Just as all electronics manufacturers, Poly-Scientific utilizes significant quantities of solders, which in the past were lead based. At the request of our customers and meet our environmental initiatives, our R&D and Engineering departments have strived the eliminate the use of lead solders in all commercial products. As a result, the quantity of lead solders used in manufacturing is now less than 90 pounds per year. In addition, all circuit board manufacturing, which utilizes high quantities of solder has now been outsourced.

VOC Reduction

Poly-Scientific achieved a 14% reduction in VOC emissions during 2002 by evaluating and substitution of paint coatings used in our spray booth. Because approximately 50% of our manufactured components are for military applications, many of the coatings were of a high VOC content (>5% per gallon). Poly-Scientific engineers worked with various coating manufacturers to formulate new paints that were lower in VOCs to help us achieve our goal. In addition, we also negotiated less stringent requirements with our military customers to allow coating substitutions.

Environmental Compliance

Although many environmental regulations and permits specify regular compliance inspections, we felt they were too infrequent to guarantee day-to-day compliance or to identify opportunities to improve our environmental and safety programs. Therefore, beginning in November 2002, our Safety Team implemented a new self-inspection program called “Red Tag”. Basically, team members, along with management of the various departments, participate in scheduled inspections weekly to identify and correct EHS concerns. If any deficiencies are noted during the inspection, the item is “red tagged”, identified on an inspection form reviewed by the General Manager, and corrected. We have continued to see the benefits of the program in terms of compliance, employee involvement in the EHS arena, and providing a safer workplace. Although our success may be measured in terms of number of deficiencies identified from inspection to inspection, the much greater benefit is that we now have 600 inspectors (our employees) in our facilities each and every day working to achieve our goal of 100% compliance.

## Future Goals

1. Continued development of the EMS to expand into manufacturing processes and meet customer demands of environmentally sensitive manufacturing.
2. Continued focus on reductions of energy consumption and solid waste generation.
3. Continued reduction in hazardous waste generation.